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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,870

08/06/2003

Takayuki Yagi

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04/28/2009

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EXAMINER

VARGOT, MATHIEU D

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

04/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/634,870	<b>Applicant(s)</b> YAGI ET AL.	
	<b>Examiner</b> Mathieu D. Vargot	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese document 6-27302 (see paragraphs 0018 and 0020), either alone or further in view of the admitted prior art of instant Figs. 1C and 1D.

Japanese -302 discloses forming a microlens matrix—ie, a mold for forming the microlenses themselves—by performing the instant steps and employing a mask with an opening of 10-400 microns (see paragraph 0018) and electroplating a convexity to the height of 10-400 microns (see paragraph 0020). These numerical ranges include the instant ranges recited by applicant and hence the instant numerical values are anticipated. Further, it is rather clear that the radius of curvature of the convexity would become a minimum at some point—just as the curvature actually develops—and then increase as the electroplating continues. Hence, it is respectfully submitted that instant step e would be anticipated by the process disclosed in Japanese -302. Instant Figs. 1C and 1D show that a minimum radius of curvature would be expected, as shown in Fig. 1C. Continued electroplating to arrive at Fig. 1D increases the radius of curvature. Hence, the electroplated layer does indeed form a minimum radius of curvature. In this rejection, the prior art of Figs. 1C and 1D has been applied to teach what is actually occurring during the electroplating—ie, what is an inherent property of the process.

2.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese document 6-27302 in view of the admitted prior art as shown in instant Figures 1C-1D.

Japanese -302 has been discussed in paragraph 1, supra and discloses the basic claimed invention lacking essentially a clear teaching that the electroplating continues after reaching a minimum radius of curvature. Instant Figures 1C and 1D show this to be the case—the radius of curvature is starting to form in Fig. 1C and is less than it is in Fig. 1D. It is submitted that instant Fig. 1C—identified as prior art by applicant-- constitutes the instant minimum radius of curvature and that such would have been obviously seen in the electroplating of Japanese -302. In other words, it is either an inherent or obvious property of the electroplating.

3.Applicant's arguments with respect to claims 1, 7 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Upon reconsideration, it is believed that the instant claims are properly rejected under both 102 and 103 over Japanese 6-27302. Contrary to applicant's comments, the admitted prior art of instant Figs. 1C and 1D—figures similar to those noted by applicant as 3D and 3E—show that Figs. 1C (and 3D) actually have a smaller radius of curvature than Figs. 1D (and 3E). Hence, a minimal radius of curvature must inherently

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be established initially—ie, at some point during the electroplating when an approximate hemisphere has been formed—and this radius of curvature increases as the electroplating proceeds. To wit, it is submitted that Fig. 3E at page 6 of the amendment, determined by applicant to be the minimum radius of curvature, actually has a larger radius of curvature than Fig. 3D. This can be readily determined by applying a protractor to the curves.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on 571 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot  
April 26, 2009

/Mathieu D. Vargot/  
Primary Examiner, Art Unit 1791